



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,337	05/18/2005	Hideki Enomoto	P27900	5829
7055	7590	03/03/2006	EXAMINER .	
GREENBLUM & BERNSTEIN, P.L.C.			DONOVAN, LINCOLN D	
1950 ROLAND CLARKE PLACE			ART UNIT	
RESTON, VA 20191			PAPER NUMBER	
			2832	

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PN

Office Action Summary	Application No.	Applicant(s)	
	10/535,337	ENOMOTO ET AL.	
	Examiner	Art Unit	
	Lincoln Donovan	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 May 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08-19-05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, in line 5, there is no antecedent basis for "the insertion hole." In line 7, there is no antecedent basis for "the fixed contact points." In lines 7-8, there is no antecedent basis for "the ends of the axis." In line 8, there is no antecedent basis for "the terminal area" or "the external circuit." In line 9, the specific connection of the "external circuit" is not clear. In line 10, there is no antecedent basis for "the both ends." In line 12, there is no antecedent basis for "the connecting axis" or "the retentive part." In lines 21-25, applicant should clarify the mounting of the fixed terminals. In line 26, it is not clear what structure applicant intends by "*quasi*-hermetically" sealed.

In claims 2 and 4-9, the phrase "wherein it" is not clear. It is not clear what applicant is referring to by "it."

In claim 3, the intended configuration of the enclosing component relative to the movable contact is unclear. It appears that the width of the interior of "the enclosing compartment" remains the same throughout its volume.

In claim 4, the structure intended by "wherein 'it' has the recess." is unclear. The structure intended to be claimed is not clear. It is not clear what applicant intends by "gas, fluids or particles 'that become resistant'."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-7, as best understood in view of the rejections under USC 112, 2nd paragraph, rejected under 35 U.S.C. 103(a) as being unpatentable over Tsutomu et al. [JP 2002-042628] in view of Dew [US 3,571,770].

Regarding claims 1 and 3, Tsutomu et al. disclose an electromagnetic switching device [figure 1] comprising:

- a solenoid coil [60] wound around a bobbin defining an axis;
- a movable core [61] movable within a hollow central portion of the bobbin along the axis;
- first and second yokes [64, 63] placed at opposing ends of the coil;
- a pair of fixed terminals [40] having fixed contact points [2a]; and
- a movable contact [41] having a pair of contact points [2b] carried by rod [56] mounted on the movable core to engage and disengage with the fixed contact points dependent upon the energization status of the coil.

Tsutomu et al. disclose everything claimed except the fixed contacts and movable contacts being mounted in an enclosing compartment.

Dew discloses an electromagnetic switch having a movable contact bridge [45] engaging with fixed contacts [41, 42] with the contacts being mounted within a “quasi-hermetically” sealed enclosing compartment [23].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to enclose the contacts of Tsutomu et al. in a “quasi-hermetically” sealed enclosing compartment, as suggested by Dew, for the purpose of protecting the contacts from damage.

Regarding claims 5-7, Tsutomu et al. discloses the actuator moving core cooperating with an air gap formed with the first yoke [figure 1].

The specific engagement of the moving core with the first yoke would have been an obvious design consideration based on the specific current to be carried by the device and the operating environment.

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsutomu et al., as modified, as applied to claim 1 above, and further in view of Mekelburg [US 2,433,703].

Tsutomu et al., as modified, disclose everything claimed except the specific mounting flange and mountings thereof.

Mekelburg discloses an electromagnetic switch including mounting flanges [figure 2].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include mounting flanges on the electromagnetic switch of Tsutomu et al., as modified, as suggested by Mekelburg, in order to secure the electromagnetic switch.

The specific mounting means and materials would have been an obvious design consideration dependent upon the size of the device and operating environment.

Allowable Subject Matter

Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lincoln Donovan whose telephone number is 571-272-1988. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2832

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ldd



LINCOLN DONOVAN
PRIMARY EXAMINER
GROUP 2100